

TABLE A.4–5.—Typical Hazardous Chemicals at Some Selected Facilities^a at the Livermore Site

Facility	Material	Approximate Quantity	Unit
Building 131 High Bay	Beryllium	760	kg
	Beryllium oxide	120	kg
	Lithium hydride/Lithium deuteride	230	kg
	Mercury	9	kg
Building 132N	Ethylene dibromide	2.92	lb
	Arsenic	2.2	lb
	Arsenic trioxide	2.97	lb
	Benzene	44.7	lb
	Beryllium	0.44	lb
	Carbon Tetrachloride	60.2	lb
	Chloroform	166.3	lb
	Potassium dichromate	23.7	lb
	Lead	30.3	lb
	Mercury	3.17	lb
	Selenium	1.5	lb
	Silver Nitrate	5.58	lb
	Sodium	17.8	lb
	Potassium cyanide	3.2	lb
Building 132S	Sodium cyanide	2.2	lb
	Beryllium	b	—
	Chloroform	0.26	gal
	Cupric sulfate	1.1	lb
	Formaldehyde	5.13	gal
	Mercury	5	lb
	Trichloroethylene	48	lb
Building 141	Hydrogen chloride gas	15	ft ³
	Arsenic	3.5	lb
	Phosphorus	3.5	lb
	Chromium trioxide	240	lb
	Cupric sulfate, anhydrous	2.6	lb
	Methylamine, anhydrous	24	lb

TABLE A.4–5.— Typical Hazardous Chemicals at Some Selected Facilities^a at the Livermore Site (continued)

Facility	Material	Approximate Quantity	Unit
Building 151	Hydrogen chloride gas	b	—
	Chromium (III) chloride	b	—
	Arsenic pentoxide	b	—
	Arsenic trioxide	b	—
	Hydrazine	b	—
	Carbon tetrachloride	b	—
	Chloroform	b	—
	Benzene	b	—
	Lead	b	—
	Mercury	b	—
	Arsenic	b	—
	Hydrofluoric acid	b	—
	Silver nitrate	b	—
	Selenium	b	—
Building 153	Hydrogen chloride gas	b	—
Building 191	1,2-dibromoethane	2	lb
	Hydrazine	<1	lb
	Silver nitrate	<1	lb
	1,2-dichloroethane	100	lb
	Captan	15	lb
	Xylene	125	lb
	Carbon tetrachloride	65	lb
	Chloroform	75	lb
	Benzene	25	lb
Building 194	Chloroacetic acid	<1	lb
	Arsine	b	—
	Beryllium	b	—
	Phosphine	b	—
	Silane	b	—
Building 197	Sulfur hexafluoride	3,000	ft ³
	Arsenic pentafluoride	1	lb
	Arsine	0.28	lb
	Boron trifluoride	0.15	lb
	Chlorine gas	8.25	lb
	Diborane	0.16	lb
	Hydrogen chloride gas	0.32	lb
	Nitrogen trifluoride	11	lb
	Phosphine	0.12	lb
	Phosphorous pentafluoride	0.15	lb
Building 197	Silane	11	lb
	Hydrofluoric acid	500	ml

TABLE A.4–5.— Typical Hazardous Chemicals at Some Selected Facilities^a at the Livermore Site (continued)

Facility	Material	Approximate Quantity	Unit
Building 231	Sodium nitrate	80	lb
	Hydrogen chloride (gas)	15.2	lb
	Selenium	10.4	lb
	Trichloroethylene	116	lb
	4,4'-Methylenedianiline	10.6	lb
	Hydrogen (gas)	120	lb
	2-Butanone, peroxide	39.6	lb
	Sodium cyanide	4.3	lb
	Lead	210	lb
	Nickel	111.8	lb
	Fluorine	100	lb
	Dichloromethane	1,200	lb
	Beryllium	4.4	lb
	Lithium hydride/deuteride	4.4	lb
Building 231V	Lithium hydride	300	kg
	1,1,1-Trichloroethane	~10	kg
	Beryllium (solid)	<5	kg
	MDI	~127	kg
Building 235	Dichromic acid, disodium salt	1	lb
	Potassium cyanide	1.1	lb
	Chloroform	0.13	gal
	Lead	13.2	lb
	Beryllium powder	69	lb
	Cupric chloride	1.1	lb
	Hydrofluoric acid	10.33	kg
	Potassium bichromate	2	lb
	Trichloroethylene	3.17	gal
	Aluminum oxide, powder	547.64	kg
	Chromium trioxide	2.77	kg
	Sulfur hexafluoride	2,500	lb
Building 239	Lead	1,000	lb
	Beryllium/Beryllium Oxide	25/50	kg
	Lithium Hydride	50	kg
Building 241	Acetic acid	1.31	gal
	Benzene	0.26	gal
	Lead	9.42	lb
	Mercury	282	lb
	Potassium hydroxide	226.88	lb
Building 261	Acetic acid	0.25	gal
	Acetone	0.13	gal
	Cadmium metal	5.5	lb
	Sodium Fluoride	0.28	lb
Building 262	Acetone	7.82	lb
	Beryllium metal	60	lb
	Cadmium metal	2.5	kg
	Thorium metal	100	lb
	Lithium hydride	167	lb
	Lead	2,000	lb
	Xylene	35	lb

TABLE A.4–5.— Typical Hazardous Chemicals at Some Selected Facilities ^a at the Livermore Site (continued)

Facility	Material	Approximate Quantity	Unit
Building 321	Beryllium	454	kg
	Lithium hydride	95	kg
	Acetone	18	gal
Building 322	Ammonium bifluoride	750	lb
	Chromic trioxide	750	lb
	Chromic acid (25-30%)	1,000	lb
	Chloroform	40	lb
	Copper Cyanide	1,200	lb
	Cupric Sulfate	5,000	lb
	Ferrous chloride	3,000	lb
	Hydrofluoric acid	150	lb
	Lead fluoroborate	500	lb
	Nickel ammonium sulfate	650	lb
	Nickel chloride	1,000	lb
	Nickel sulfate	1,200	lb
	Nitric acid (69-71%)	9,600	lb
	Potassium cyanide	600	lb
	Potassium dichromate	50	lb
	Sodium chromate	50	lb
	Sodium dichromate	50	lb
	Sodium cyanide	600	lb
Building 327	Sodium hydroxide (98% and less)	2,000	lb
	Silver nitrate	80	lb
	Chromic acid	83.5	lb
	Nitric acid (69-71%)	5,189	lb
	Cyanide solution	55	lb
	1,2-Dichloroethane	0.26	gal
	Hexane	1.0	gal
Building 332	Xylene	0.13	gal
	Methanol	1.13	gal
Building 334	Acetone	1.06	gal
	Propane	2.62	lb
	Hydrogen Peroxide	0.26	gal
	2-Butanone	2.38	gal
	HCl gas	55	lb
	Chlorine gas	100	lb
	Mercury	8	lb
Building 360 Complex ^c	Lead	<2,300	lb
	Beryllium/beryllium oxide	200/400	kg
	Lithium hydride	200	kg
	1,2-Dibromo-3-chloropropane	1	lb
	Arsenic disulfide	1	lb
	Arsenic trioxide	1	lb
	Benzene	10	lb
	Cacodylic Acid	1	lb
	Cadmium dichloride	10	lb
	Carbon Tetrachloride	10	lb
	Chloroform	10	lb
	Cupric sulfate, anhydrous	10	lb
	Dichromic acid, disodium salt	10	lb
	Emetine dihydrochloride	1	lb

TABLE A.4–5.— Typical Hazardous Chemicals at Some Selected Facilities^a at the Livermore Site (continued)

Facility	Material	Approximate Quantity	Unit
Building 360 Complex ^c (cont.)	Ether, anhydrous	100	lb
	Formaldehyde	100	lb
	Lead	10	lb
	Potassium cyanide	10	lb
	Selenium	1	lb
	Silver nitrate	1	lb
	Sodium cyanide	10	lb
	Xylene	100	lb
	Mercury	1	lb
Buildings 378/379	Perchloric acid	b	—
	Nitric acid	b	—
	Hydrofluoric acid	b	—
	Hydrochloric acid	b	—
Building 392	Acetone	19	L
	Ethanol	208	L
	Sol-Gel (97% Ethanol/3% tetraethyl orthosilicate)	284	L
	Hydrofluoric acid	55	gal
	Ammonia	8	gal
	Epoxy ECA-1	5	L
	Epoxy ECA-2.5	5	L
	Tetraethyl orthosilicate	30	L
Building 519	Acetone	1.24	lb
	Dichloroethane	3.8	lb
	Methanol	19.1	lb
Buildings 581/681	Acetone	210	L
	Ethyl alcohol	256	L
	Isopropyl alcohol	20.5	L
	Chloroform	0.5	L
	Nitric acid	2,800	L
	Phosphoric acid	2,800	L
	Mercury, metallic	3.5	L
	Sodium hydroxide	1,906	kg
	Toluene	18	L
	Xylene	18	L
Building 695	Sulfuric acid (98%)	2,786	kg
	Sodium hydroxide (50%)	1,737	kg
	Hydrogen peroxide (50%)	1,665	kg
	Ferric sulfate (50%)	1,709	kg
Container Security Testing Facility	Cadmium	<10	lb
	Arsenic	1	lb
	Lead	<4,000	lb
	Carbon tetrachloride	<20	lb

Source: DOE 2003a; LLNL 1997f, 1997g; LLNL 1999b, 1999g; LLNL 2000b, 2000d, 2000j, 2000k, 2000l, 2000o, 2000p; LLNL 2001a, 2001b, 2001e, 2001f, 2001m, 2001x, 2001y, 2001z, 2001ag, 2001ah, 2001aw; LLNL 2002k, 2002aq, 2002ak, 2002ar, 2002by, 2002cq, 2002cu, 2003cw, 2002g, 2002s.

^a Facilities not listed may also have small quantities of similar types of chemicals.

^b May be present in small laboratory quantities.

^c The 360 complex is comprised of the following buildings: 361, 362, 363, 364, 365, 366, 367, 373, 376, 377, and 368 (planned).

ft³ = cubic feet; gal = gallons; kg = kilograms; L = liters; lb = pounds; ml = milliliter.